
**DENVER VETERANS AFFAIRS MEDICAL CENTER
OFFICE BASED MEDICAL TEAM CURRICULUM**

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I. Educational Purpose and Goals

Management of patients with subacute medical conditions remains essential for the practice of internal medicine. The Office Based Medical Team (OBMT) rotation at DVAMC allows residents to refine history and physical exam skills, develop experience in selection of diagnostic tests and learn management of a wide variety of diseases. These experiences provide exposure to common medical problems of patients who are presenting in followup to hospitalizations and emergency department visits and who are new to the VA medical system. It allows residents opportunities to develop skills in coordinating outpatient and inpatient care. OBMT residents also have the opportunity to participate in selected internal medicine specialty clinics during their rotation. Finally, OBMT residents develop skills in the critical appraisal of the medical literature in the OBMT morning report.

II. Principal Teaching Methods

A. Supervised Direct Patient Care:

1. Residents encounter patients in a primary setting who are referred to the OBMT clinic for outpatient evaluation. Faculty supervise all patients seen in clinic. The OBMT team includes one attending physician, two to three PGY2 or PGY3 residents, 0 to 1 PGY1 residents depending on the month, with participating medical students. Morning report is an important educational exercise which emphasizes evidence based medical education. This mandatory session involves critical critique and discussion assimilating basic science knowledge, clinical data, pathophysiology, and evidence based principles. The clinical component includes confirmation of residents' history and physical examination skills by the teaching attending physician. The teaching attending assesses and models communication skills.
3. OBMT Clinic has two sessions daily, with patients scheduled from 9 AM to 11:30 AM and from 1:00 to 3:30 PM. Patients are appointed for ½ hour slots and each resident sees one patient per appointment slot. Thus the typical resident will see and evaluated 4-5 patients per half day session. Each patient is seen and discussed with the attending faculty physician who reviews the history, physical exam findings, laboratory/imaging studies and who works with the resident to develop a diagnostic and therapeutic plan specific for the patient.

4. Specialty Clinics: Residents have the option of attending selected internal medicine specialty clinics 1-2 half days per week. The clinics include Cardiology, Chest, Rheumatology, Endocrine, Neurology, GI, Oncology and Renal. The resident experience is supervised by the teaching attendings in each clinic.
5. Emergency Room: OBMT residents may also have selected half day shifts in the VA Emergency room. In this setting they see a wide variety of patients presenting with acute medical problems. Residents typically will have 1-2 half days per week in this activity. The residents are supervised by board certified faculty attendings.

B. Small Group Discussions

1. Morning Report: Held on weekdays at 7:30am, Morning Report is attended by all OBMT residents and all PGY1 resident who are taking the Ambulatory Care Block rotation. The Morning Report sessions are focused on developing critical appraisal skills. Each month, Dr. Prochazka provides two introductory sessions outlining a structured approach to critical appraisal. For the other sessions, residents select clinical questions that are directly relevant to the care of patients seen and conduct a literature search to find the best available scientific data. They prepare a 1-2 page summary of the relevant study and present this along with their critical appraisal of the work to the group. Residents typically present detailed analyses of 1-3 articles each month. The sessions are facilitated by the OBMT attendings on service that month and by Dr. Prochazka.

C. Didactic Sessions

1. Morbidity and Mortality Conference: This weekly conference is conducted largely by faculty. Residents on the inpatient teaching services present and discuss all deaths. Findings from all autopsy reports are also presented and discussed, including a review of pathological materials. Faculty present important cases of morbidity, including health care quality or patient safety issues, to facilitate identification of systems improvement opportunities and to address issues leading to medical error. Once a month a CPC is held.
2. Core Curriculum Conference: This Wednesday morning weekly session for senior residents is held at University of Colorado Hospital. Topics are drawn largely from the major specialty disciplines. Residents are excused from OBMT on Wednesday morning to attend these sessions.

III. Educational Content

A. Mix of Diseases

Encountered patients have a variety of conditions representative of common medical problems. The OBMT residents see the full range of internal medicine problems in the OBMT clinic.

B. Patient Characteristics

Patients admitted to the service are veterans, eligible for care according to federal rules.

C. Learning Venues

1. 5North, 5South for inpatient care.
2. Firm A and B for OBMT clinic

D. Procedures

1. The procedures that are either learned or reinforced on OBMT rotations include but are not limited to:
 1. Arterial puncture
 2. Basic and advanced cardiac life support
 3. Central venous access
 4. Lumbar puncture
 5. Abdominal paracentesis
 6. Thoracentesis
 7. Arthrocentesis
 8. Nasogastric intubation
2. Interpretive skills that are reinforced or learned on the OBMT service include:
 1. Serum electrolytes and routine chemistry panel
 2. Urinalysis and microscopic examinations of urine
 3. Liver function tests
 4. Coagulation studies
 5. Arterial blood gases
 6. Chest x-ray interpretation
 7. Electrocardiogram
 8. Peripheral smear of blood (reviewed with Oncology)
 9. Sputum Gram stain (reviewed with Microbiology)
 10. Spirometry (reviewed with Pulmonary)

E. Ancillary Services

1. Subspecialist and Primary Care faculty
2. All medical subspecialty fellows
3. Residents from other specialty training programs: General Surgery, Psychiatry, Orthopedics, Neurosurgery.
4. Case managers
5. Nursing staff
6. Physical Therapy and Occupational Therapy
7. Respiratory Therapy specialists
8. Numerous other ancillary staff – clinical, administrative, and paraprofessionals

F. Structure of Rotation

1. The OBMT residents also function as a night float service for the inpatient medical service. Call is a required element of the OBMT service approximately every 5th night. Responsibilities for

residents are detailed in the resident manual. Upper level residents evaluate patients for admission from the emergency department and provide cross cover for medical inpatients.

2. OBMT service residents begin the day at 7:30 AM with Morning Report. Required conferences are discussed above. A sample generic workweek is scheduled as below, with flexible management rounds and patient care hours. Residents work hours are fully described in the resident manual.

iii.

	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
7:30 – 8:30 AM	Morning Report	Morning Report	Morning Report for interns only	Morning Report	Morning Report	
8:30-11:30	OBMT Clinic	OBMT Clinic	OBMT Clinic	OBMT Clinic	OBMT Clinic	
12:00-1:00PM	Noon Conference	Noon Conference	Grand Rounds	Noon Conference	Meetings and CPC	
1:00-4 PM	OBMT Clinic	OBMT Clinic	OBMT Clinic	OBMT Clinic	OBMT Clinic	

IV. Principal Ancillary Educational Materials

- A. All residents and managing physicians are provided with the OBMT Curriculum and Learning Objectives prior to the start of each rotation.
- B. Residents are assigned targeted reading in primary literature sources by Managing Attending and Teaching Attending physicians throughout the rotations.
- C. Full service libraries are present at both DVAMC and Denison Library at the University of Colorado Health Sciences Center. 24-hour access to on-line programs and literature is available. Up-to Date is present on all computers.

D. Computer-based resources are available at the hospitals to facilitate patient care, education and communication. The following are made available:

1. Computer-assisted diagnosis and decision support
2. Drug information including side effect and drug-drug interactions
3. Electronic Medical Record internet accessibility
4. Electronic textbooks of medicine
5. E-mail services
6. Internet access to medical sites on the World Wide Web
7. Laboratory and radiology results retrieval
8. Multimedia procedures training
9. Patient education materials

E. The Medical Record is totally computerized.

V. Methods of Evaluation

A. Resident Performance

1. Faculty complete computerized resident evaluation forms. The evaluation is competency-based. The evaluation is shared with the resident, who receives a copy, and is internally reviewed by the residency office. The evaluation is part of the resident file and is incorporated into the semiannual performance review for directed resident feedback.
2. Residents electronically record completed procedures. The supervising physician verifies that the resident understands the procedure's indications, contraindications, complications and interpretation.
3. Computer patient records are reviewed by attendings who provide specific feedback to the resident on data-gathering and documentation skills.

B. Program and Faculty Performance

1. Upon completion of the rotation, residents complete a service evaluation commenting on the faculty, facilities and service experience. Evaluations are reviewed by the program and attending faculty physicians receive anonymous copies of completed evaluations. Collective evaluations serve as a tool to assess faculty development needs. The Training and Evaluation Committee reviews results annually.

VI. Institutional Resources: Strengths and Limitations

A. Strengths

- 1 Faculty. Faculty has won numerous awards for teaching excellence.
2. Facilities. The hospital is a modernized institution with state-of-the-art cardiac catheterization, a dialysis unit, radiology services and experienced technicians
3. Patients. There is an excellent disease mix and patient panel.
4. Direct evaluation of patients by both residents and attendings is strongly emphasized.

5. The computer system is the best in the world.
6. Health care delivery in a capitated system is demonstrated.

B. Limitations

1. Inpatient population is largely male.

VII. Rotation Specific Competency Objectives

A. Patient Care

1. History taking. Residents at all levels of training will collect a thorough history by soliciting patient information and by consulting other sources of primary data in a logical and organized fashion. History taking will be hypothesis driven. Interviewing will adapt to the time available, use appropriate nonverbal techniques, and demonstrate consideration for the patient. The resident will inquire about the emotional aspects of the patient's experience while demonstrating flexibility based on patient need.
2. Physical Exam. Residents at all levels of training will perform a comprehensive physical exam tailored to the patient's presenting complaints, describing the physiological and anatomical basis for normal and abnormal findings.
3. Charting. Residents at all levels of training will record data in a thorough, systematic manner.
4. Procedures.
 - a. OBMT residents will demonstrate knowledge of: procedural indications, contraindications, necessary equipment, specimen handling, patient after-care, and risk and discomfort minimization. They will participate in informed consent and assist patients with decision making. They will correctly identify the meaning of test results.
 - b. PGY-3 residents will demonstrate extensive knowledge and facility in the performance of procedures while minimizing risk and discomfort to patients. They will assist their junior peers in skill acquisition.
5. Medical Decision Making, Clinical Judgment, and Management Plans. All residents will demonstrate improving skills in assimilating information that they have gathered from the history and physical exam.
 - a. PGY-1 residents will be able to identify patient problems and develop a prioritized differential diagnosis. Abnormal findings will be interrelated with altered physiology. They will understand their limitation of knowledge and seek the advice of more advanced clinicians. PGY-1 residents will begin to develop therapeutic plans that are evidenced or consensus based. Residents will establish an orderly succession of testing based on their history and exam findings. Specific organ dysfunction will be anticipated based on known side effects of therapy. Additionally,

residents will understand the correct administration of drugs, describe drug-drug interactions, and be familiar with expected outcomes.

- b. PGY-2 residents will also regularly integrate medical facts and clinical data while weighing alternatives and keeping in mind patient preference. They will regularly incorporate consideration of risks and benefits when considering testing and therapies. They will present up-to-date scientific evidence to support their hypotheses. They will consistently monitor and follow-up patients appropriately. They will develop plans to avoid or delay known treatment complications and be able to identify when illness has reached a point where treatment no longer contributes to improved quality of life.
- c. PGY-3 residents will demonstrate the above and in addition, will demonstrate appropriate reasoning in ambiguous situations, while continuing to seek clarity. Residents at this level of training will not overly rely on tests and procedures. PGY-3 residents will continuously revise assessments in the face of new data.

6. Patient counseling

- a. PGY-1 residents will be able to describe the rationale for a chosen therapy and will be able to describe medication side effects in lay terms. They will assess patient understanding and provide more information when necessary. Residents will demonstrate the ability to be a patient advocate.
- b. PGY-2 residents, in addition to the above, will be able to explain the pros and cons of competing therapeutic interventions. PGY-2 residents will be expected to counsel patients regarding adverse habits. PGY-2 residents will be able to educate patients and families for enhanced compliance.
- c. PGY-3 residents, in addition to the above, will effectively communicate with critically ill patients and those making life-style modifications.

B. Medical Knowledge

- 1. PGY-1 Residents will consistently apply current concepts in the basic sciences to clinical problem solving. They will use information from the literature and other sources including electronic databases. PGY-1 residents will demonstrate satisfactory knowledge of common medical conditions, sufficient to manage urgent complaints with supervision. Residents must exhibit sufficient content knowledge of common conditions to provide care with minimal supervision by completion of the PGY1 year.

2. PGY-2 residents will demonstrate a progression in knowledge and analytical thinking in order to develop well-formulated differential diagnoses for multi-problem patients. They will also demonstrate socio-behavioral knowledge.
3. PGY-3 residents in addition to the above will demonstrate appropriate habits to stay current with new medical knowledge, and will exhibit knowledge of effective teaching methods.

C. Interpersonal and Communication Skills

1. PGY-1 residents will develop and refine their individual style when communicating with patients. They will strive to create ethically sound relationships with patients, the physician team and supporting hospital personnel. They will create effective written communications through accurate, complete, and legible notes. They will exhibit listening skills appropriate to patient-centered interviewing and communication. Residents will recognize verbal and nonverbal cues from patients.
2. PGY-2 residents will also exhibit team leadership skills through effective communication as manager of a team. PGY2 residents are expected to assist junior peers, medical students, and other hospital personnel to form professional relationships with support staff. Residents will respond to feedback in an appropriate manner and make necessary behavioral changes. PGY-2 residents will be able to communicate with patients concerning end-of-life decisions.
3. PGY-3 residents should additionally be able to successfully negotiate nearly all “difficult” patient encounters with minimal direction. Third year residents should function as team leaders with decreasing reliance upon attending physicians.

D. Professionalism

All residents will demonstrate integrity, accountability, respect, compassion, patient advocacy, and dedication to patient care that supercedes self-interest. Residents will demonstrate a commitment to excellence and continuous professional development. They will be punctual and prepared for teaching sessions. Residents will demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, and informed consent. Residents are expected

to show sensitivity and responsiveness to patients' culture, age, gender and disabilities.

E. Practice Based Learning and Improvement

1. PGY-1 residents will use hospital and University library resources to critically appraise medical literature and apply evidence to patient care. They will use hand-held computers, desktop PC's and Internet electronic references to support patient care and self-education. They will model these behaviors to assist medical students in their own acquisition of knowledge through technology.
2. PGY-2 residents will in addition consistently seek out and analyze data on practice experience, identify areas for improvement in knowledge or patient care performance and make appropriate adjustments. They will regularly demonstrate knowledge of the impact of study design on validity or applicability to individual practice.
3. PGY-3 residents will additionally model independent learning and development.

F. Systems Based Practice

1. PGY-1 residents will be sensitive to health care costs while striving to provide quality care. They will begin to effectively coordinate care with other health care professionals as required for patient needs.
2. PGY-2 residents, in addition to the above, will consistently understand and adopt available clinical practice guidelines and recognize the limitations of these guidelines. They will work with patient care managers, discharge coordinators and social workers to coordinate and improve patient care and outcomes.
3. PGY3 residents, in addition to the above, will enlist social and other out-of-hospital resources to assist patients with therapeutic plans. PGY-3 residents are expected to model cost-effective therapy.